Core no. 16457-1 B.C. N 5° 23.5' W 21° 43.2': 3291 m b.s.l.
16457-2 G.C. N 5° 23.1' W 21° 45.1': 3303 m b.s.l.

Age control: Date: 31/10/1990

- *C. wuellerstorfi* and *G. ruber* $\delta^{18}O$ records (Sarnthein et al., 1988 and Winn et al., 1991), *G. sacculifer* $\delta^{18}O$ record (Kassens & Sarnthein, 1989).
- ^{14}C ages of coarse carbonate fraction (Kassens & Sarnthein, 1989).
- AMS ^{14}C analogue stratigraphy.

Core fit :

- 0 cm in core -2 = 5 cm in core -1.

Surface sediment age :

- Zero, inferred from undisturbed surface sediment in B.C.

Age/depth correlation :

Orig. depth [cm]	^{14}C age [ky BP]	Error ±	Calendar years [ka]		Sed.rate [cm/ky]	Original interval/ material/ $\delta^{18}O$ stratigraphy	Core no.	Remarks
0			0		-.-			
3.5	4.05	70	4.53	a)	-.-	3- 4 cm carbonate >125µm	-1	ignored, mixed layer
7.5	4.07	55	4.55	a)	-.-	7- 8 cm carbonate >125µm	-1	ignored, b)
14	9.1		9.8	c)	1.43	AMS ^{14}C analogue		
15.5	7.61	90	8.43	a)	-.-	15- 16 cm carbonate >125µm	-1	ignored, b)
15			?		-.-			? top, bioturbated section
22.5			?		-.-			? base, bioturbated section
23.7	13.6		17.1	c)	-.-	AMS ^{14}C analogue	-1	
24.5	14.62	190	18.12	c)	-.-	24- 25 cm carbonate >125µm	-1	ignored, b)
28.5	14.8		18.3	c)	1.71d)	AMS ^{14}C analogue		
34.5	24.62	610	28.12		-.-	34- 35 cm carbonate >125µm	-1	ignored, b)

a) See Winn et al. (1991).
b) ^{14}C ages are probably biased due to local winnowing and lateral advection.
c) corrected after Bard et al. (1990).
d) assuming no break in sedimentation between 9.8 ka and 18.3 ka.

Remarks :

- C_{org}, sediment physical properties (Kassens and Sarnthein, 1989).
- All age estimates may be biased due to low sedimentation rates and bioturbation.

Original references:

- Sarnthein, M., Winn, K., Jung, S.J.A., Duplessy, J.-A., Labeyrie, L., Erlenkeuser, H. & Ganssen, G. (1994): Changes in east Atlantic deepwater circulation over the last 30,000 years: Eight time slice reconstructions.- Paleoceanography, 9, 209-267.
- Winn, K., Sarnthein, M. & Erlenkeuser, H. (1991): $\delta^{18}O$ stratigraphy and chronology of Kiel sediment cores from the East Atlantic.- Ber.-Rep. Geol. Paläont. Inst. Univ. Kiel, 45, 99 pp.
- Kassens, H. & Sarnthein, M. (1989): A link between paleooceanography, early diagenetic cementation, and sheer strength maxima in Late Quaternary deep-sea sediments? - Paleoceanography, 4, 253-269.
- Sarnthein, M., Winn, K., Duplessy, J.-C. & Fontugne, M. (1988): Global variations of surface ocean productivity in low and mid latitudes: Influence on CO_2 reservoirs of the deep ocean and atmosphere during the last 21,000 years.- Paleoceanography, 3, 361-399.

LGM time slice:

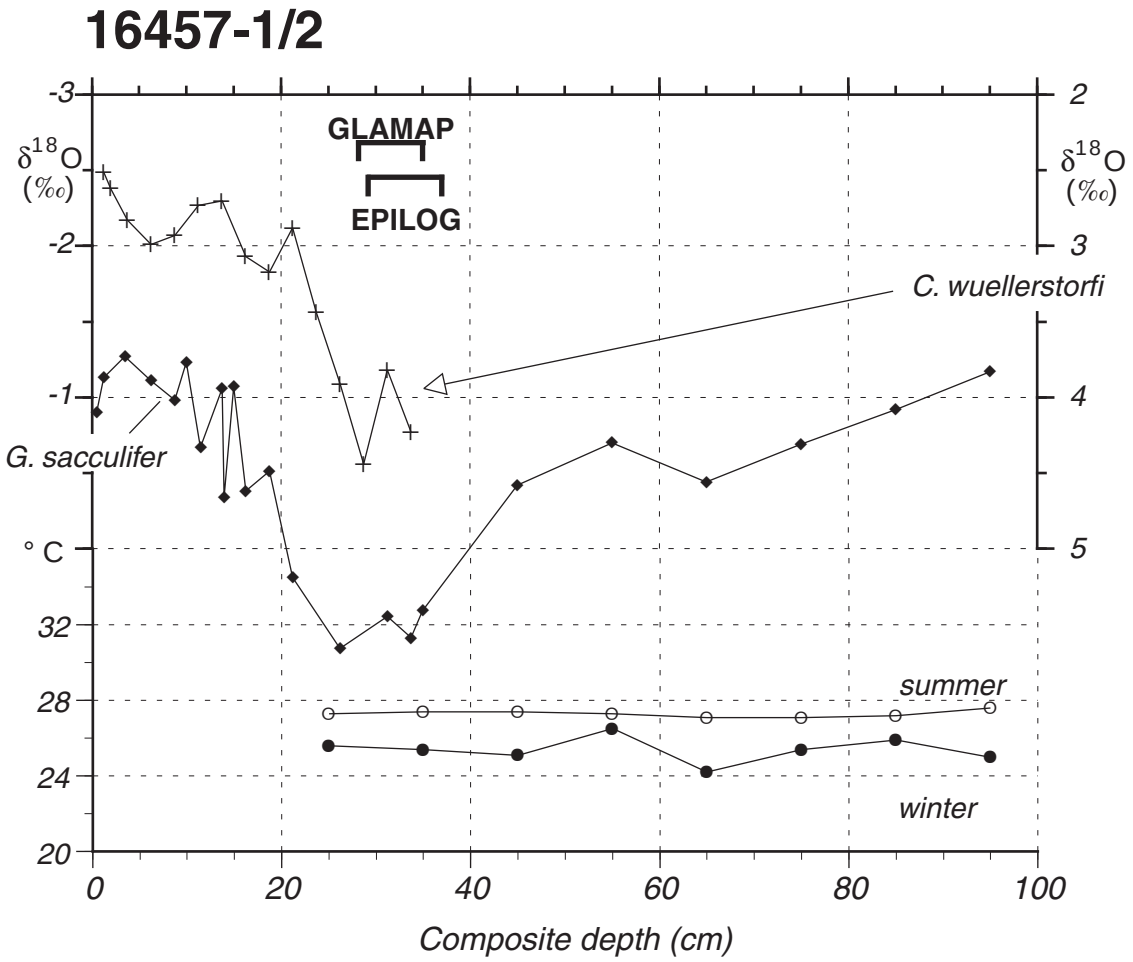
- GLAMAP: 28-35 cm comp. depth = 23-30 cm orig. depth in core (-2)
- EPILOG: 29.5-37 cm comp. depth = 24.5-32 cm orig. depth in core (-2)

LGM foraminifera counts: Pflaumann (UP)

- GLAMAP: (in core -2) 30 cm orig. depth.
- EPILOG: (in core -2) 30 cm orig. depth.

References for faunal analysis:

- Pflaumann et al., Paleoceanography, in prep.


16457-1/2
GLAMAP
EPILOG
δ18O (‰)
δ18O (‰)
C. wuellerstorfi
G. sacculifer
° C
summer
winter
Composite depth (cm)
-3
-2
-1
2
3
4
5
32
28
24
20
0
20
40
60
80
100